OK

Atty. Docket No.: SIG000108

Patent Application No. 10/718,769

IN THE CLAIMS:

1. (Currently Amended) A method for sensing a temperature of a device, that comprises:

establishing a programmable current for an on-chip current source;

sensing a temperature-dependent temperature-dependent voltage that is based on a temperature dependent resistive device component and the programmable current, wherein the temperature-dependent voltage is maintained within a predetermined range, and wherein the temperature dependent resistive device component is thermally coupled to the device;

converting the temperature-dependant voltage to a digital value; and equating the digital value to the temperature of the device.

- 2. (Original) The method of claim 1 further comprises adjusting the programmable current such that the temperature-dependent voltage is within a predetermined range of values for converting the temperature-dependent voltage into the digital value, wherein the equating of the digital value is further based on the adjusting of the programmable current.
- 3. (Currently Amended) The method of Claim 1, wherein the temperature dependent resistive device component comprises athermistor.
- 4. (Original) The method of claim 1, wherein the equating the digital value to the temperature of the device further comprises determining the temperature of the device from a table relating digital values to temperatures.